DOCUMENT RESUME

ED 284 467 HE 020 509

AUTHOR	Green, Joslyn L., Ed.
TITLE	The Master's Degree: Jack of All Trades.
INSTITUTION	State Higher Education Executive Officers Association.
PUB DATE	Apr 87
NOTE	74p.; Five of the eight papers were presented at a Meeting of the State Higher Education Executive Officers (Asheville, NC, October 1986).
AVAILABLE FROM	State Higher Education Executive Officers, 1860 Lincoln Street, Suite 310, Denver, CO 80295.
PUB TYPE	Collected Works - General (020) -- Viewpoints (120)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Academic Standards; College Programs; College Role; *Degree Requirements; *Educational Change; Educational Quality; Evaluation Methods; Government Role; Government School Relationship; *Graduate Study; Higher Education; *Masters Degrees; *Program Evaluation; Self Evaluation (Groups)
IDENTIFIERS	Course Numbering; Kansas; Tennessee

ABSTRACT

The master's degree is discussed in seven papers written by academic officers serving state coordinating and governing boards. In "Toward a New Paradigm," Judith S. Glazer considers changes in the master's degree and suggests that the degree is changing to meet student needs, the job market, and external standards. Martine F. Hammond's paper, "Program Review: One Step in the Right Direction," considers a new course numbering system and graduate program review in Kansas. In "Stronger Requirements and a New Alternative," Robert R. Appleson discusses new Tennessee standards for the master's degree and a new kind of degree (the "Professional Supplement"). Self-evaluation of master's programs is emphasized Joyce V. Lawrence in "The Additive Fallacy and an Added Concern." Ways that the country, states, and colleges can improve the master's degree are discussed by Robert J. Barak in "A Skeleton in the Closet," which also identifies evaluation methods and criteria. In "The Strain of Quality," Jules B. LaPidus outlines changes in graduate education since World War II and problems in achieving educational quality. Also presented are a concluding essay by Joslyn L. Green and an appendix by C. W. Minkel and Mary P. Richards, "Components of Quality in Master's Degree Programs." (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED284467

The MASTER'S DEGREE

★★★★★★★★

Jack of All Trades

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

SHEEO

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

020 509.

SHEEO
State Higher Education Executive Officers

BEST COPY AVAILABLE

THE MASTER'S DEGREE,

JACK OF ALL TRADES

Joslyn L. Green
Consulting Editor

April 1987

State Higher Education Executive Officers
1860 Lincoln Street, Suite 310
Denver, Colorado 80295
(303) 830-3686

TABLE OF CONTENTS

Page

Foreword i
James R. Mingle

Toward A New Paradigm 1
Judith S. Glazer

Program Review: One Step in the Right Direction 13
Martine F. Hammond

Stronger Requirements and a New Alternative 21
Robert R. Appleson

The Additive Fallacy and an Added Concern 28
Joyce V. Lawrence

A Skeleton in the Closet 32
Robert J. Barak

The Strain of Quality 43
Jules B. LaPidus

A Cri de Couer - and Questions to Consider 53
Joslyn L. Green

Appendix 58
Components of Quality in Master's Degree Programs,
Tennessee Conference of Graduate Schools

FOREWORD

Jules LaPidus, President of the Council of Graduate Schools, calls higher education the "Great American Degree Machine." An apt description when you consider the capacity of American colleges and universities to crank out an enormous number and variety of credentials. "Yes, but," say the authors of this monograph, "what about the quality and meaning of those degrees?"

In recent years, we have had several national studies which have raised questions about the baccalaureate — its lack of standards, its fragmentation. Similar questions are raised here about the master's degree.

State boards should be especially concerned about the master's degree. Many states are faced with continuing pressure for extending access to popular master's degree programs in such fields as business and engineering. Professional groups in other fields like physical therapy, accounting, and teacher education, want to raise entry level licensing and certification requirements to include master's level study.

These pressures will complicate both our decisions about new programs and our evaluation of the quality of existing ones. When programs become necessary for job certification and advancement, then access becomes an "entitlement." Colleges find it difficult to maintain standards and state boards find it difficult to deny access either on cost or quality considerations. "This is a free country," Robert Hutchins said fifty years ago, "which in my business means that anybody is free to make suggestions to a university and demand that they be carried out."

This publication emerged from the deliberations of a group of academic officers serving state coordinating and governing boards which have met under SHEEO sponsorship for the past 10 years. Five of the papers included here were first presented at the academic officers meeting held in October 1986 in Asheville, North Carolina. Has the master's degree been devalued? Is it simply "the baccalaureate plus 30 credit hours?" Those were the sorts of questions that speakers and seminar participants met to consider.

Following the seminar, Robert Appleson, Judith Glazer, Martine Hammond, Jules LaPidus and Joyce Lawrence kindly agreed to produce written versions of their remarks. I thank them for twice coming to the aid of SHEEO and I thank them for their thoughtful approaches to the subject. I also thank Robert Barak for agreeing to develop a paper especially for this publication.

To Joslyn Green, writer and consulting editor, fell the task of tying these pieces into the whole. In her concluding essay, she reveals special insight into our dilemma that should be noted precisely because she is an "outsider." I greatly appreciate her help and her wisdom.

It is my hope that, by way of this publication, the debate on this important subject will continue and the end result may be that the master's degree will become a stronger, healthier component of higher education.

James R. Mingle
Executive Director
SHEEO

TOWARD A NEW PARADIGM

Judith S. Glazer, Ph. D.
Associate Dean, School of Education
and Human Services
St. John's University

Less than 16% of the master's degrees awarded in 1982-83 were liberal arts degrees. The rest were professional degrees.

That is one of the many facts Judith Glazer has gathered about a degree that millions of people have received since World War II. What exactly have they received? That is one of the troubling questions. Glazer suggests an also-troubling answer: a degree so diverse that no single definition suffices.

After describing briefly what the master's degree has been, she examines what it seems to have become. Ultimately, she advocates that we recognize the master's degree for what it actually is: not a single degree but a class of degrees, not a scholarly degree but a professional degree. Only by recognizing that the degree has redefined itself, she feels, can we make it a strong component of graduate education. —Editor

The assumptions that now underlie the structure, purpose, and content of the master's degree have changed and continue to change. I would like first to describe how the master's degree is changing and then to outline some of the attendant issues. I believe that the changes we are seeing will culminate in a new paradigm of the master's degree, one that recognizes the degree as a class of degrees rather than as a single generic degree. The conviction that we confront a new paradigm, in turn, leads me to raise some considerations that seem increasingly important.

Changes

The master's degree originated in the arts and sciences as the first post-baccalaureate degree. Conferred on candidates after one year of graduate study, it often also marked the first year of doctoral study. Now, though, the master's degree has become a validation of expertise in numerous disciplines and sub-disciplines. It exceeds other graduate degrees in its diversity: in 1982-83 master's degrees were conferred in 30 disciplines and 633 specializations (Office of Educational Research and Improvement, 1985). With the addition of the 155 dual master's degrees, the available combinations number almost 800.

The number of master's degrees awarded has risen by 134% in the past two decades, reaching 300,000 in 1982-83. Professional master's degrees account for 84.2 percent of that total; liberal arts degrees account for only 15.8 percent. Nearly three times as many master's degrees were conferred in 1982-83 as first-professional (law, medicine, dentistry, and theology) and doctoral degrees combined. Though the percentage of master's degrees awarded in education has dropped since 1962, education and business still accounted for more than half the degrees awarded in 1982-83. Engineering, which was second with 11 percent in 1962, has now dropped to fifth with 6.7 percent. Business, health science, computer science, psychology, and public affairs are the fastest-growing fields.

One major cause of growth has been the participation by women and minorities in heretofore non-traditional fields of study such as business and management. From 1961 to 1980, women's first-professional degree output jumped a phenomenal 2,578 percent (Stolzenberg, 1985).

Consequences of Change

Now that professional degrees clearly overshadow arts and science degrees as terminal credentials, defining universities in terms of scholarly research is increasingly difficult. Demands for quality control and accountability contend with proposals for innovation. State boards, accreditation agencies, and professional associations comment with frequency on the problems of degree proliferation, even as universities mount efforts to attract non-traditional clienteles. The result is uncertainty about the role of the university, the functions and purposes of graduate and professional education, and the meaning of a generic degree so diverse that no single definition can adequately describe its structure, content, and objectives.

I would like to address five major issues that emerge from changes in the master's degree: proliferation, diversity, quality control, the theory-practice dilemma, and innovation and change.

Proliferation The diversity of the master's degree has been a source of concern throughout this century. In 1910, a task force of the Association of American Universities deplored the "pergamental [sheepskin] psychosis" of students seeking the master's degree. At later AAU meetings, member universities debated whether the purpose of this degree was research, training, or enrichment. Alarm was repeatedly voiced about degree proliferation and over-specialization. By 1959, the Association of Graduate Schools was calling for a master's degree that was "rehabilitated, revitalized, resuscitated, redefined, and readjusted." In his excellent study of graduate education, Berelson (1960) decried the decline in prestige of a degree that had come to be used mainly for "certifying, testing, and consoling." The following year, a task force of the American Council on Education recommended limiting master's degrees to 50 to control rampant specialization (Whaley, 1966).

As we are all aware, however, the expansion of higher education throughout the 1960s and 1970s and the inauguration of many new professional-degree programs compounded the diversity of master's degree. As more women and men brought baccalaureate degrees to entry-level jobs, accreditation agencies, professional associations, and employers raised the criteria for career advancement. Since 1960, undergraduate programs have been elevated to graduate status in such fields as business, nursing, engineering, library science; if recent recommendations of the Holmes group and the Carnegie Forum take hold, teacher education will follow the same course.

In some fields, however, programs that originated as master's programs now compete with parallel undergraduate programs. Business programs are one example. In 1959, a Carnegie Corporation study (Gordon and Howell) recommended that the undergraduate business program be replaced by a more rigorous first-professional M.B.A. But even though the M.B.A. has been strengthened, the undergraduate business major is still firmly entrenched in universities and colleges. Indeed, 22 percent of all undergraduate and graduate students now major in business; they received 27 percent of all degrees awarded in 1982-83.

One result is that degree level no longer signifies the extent or focus of content. In social work, for example, course duplication between the B.S.W. and M.S.W. has led Dinerman (1982) and Hartman (1983) to question the purpose of the master's degree. Is what we expect from the M.S.W. without a B.S.W. the same as what we expect from a B.S.W./M.S.W. continuum? Is the undergraduate study of social work discontinuous with graduate study or a foundation for graduate study? If the B.S.W./M.S.W. is a continuum, should it be a generalist/specialist continuum? Should M.S.W. programs emphasize abstraction, theory, and research more than undergraduate programs?

Another example is teacher education. The current interest in training teachers at the post-baccalaureate level raises serious questions about the validity of the undergraduate experience. As yet undefined is the difference between basic and advanced training for teachers.

A third example. The nursing profession is dominated by registered nurses, 80 percent of whom lack advanced degrees. Advanced training became a priority only in 1981, when the National League of Nursing and American Association of Colleges of Nursing sought greater autonomy and professionalism for nursing. The M.S.N., an advanced degree that requires an upper-division major in nursing, is now held by only five percent of all nurses. One problem for the institutions that train nurses is how to reconcile accreditation standards with the newly defined need for graduate-trained nurses. The problem is particularly acute now that federal capitation aid has been phased out, which means that many nurses, like many social workers, can go to school only part-time and in the evening.

The problems that the master's degree presents for professions like social work, teaching, and nursing are not caused by devaluation. They are caused instead by a type of proliferation in professional education that has brought great confusion in its wake.

Diversity In theory, the curricular model for the master's degree has five discrete components: a common core of introductory courses, one or more concentrations inside the discipline, cognate courses taken outside the department, an integrative experience, and a summative experience (like a thesis, a research project, a comprehensive examination, a performance). In practice, though, curricula are highly diverse.

For example, the 32-34 credit model is most popular in liberal arts, the sciences, teacher education, and engineering. But terminal master's degrees often require 45 to 60 credit hours or two years of full-time study. Some programs require even more credits, especially when students have taken no undergraduate courses in the major field.

Efforts to conceptualize this class of degrees falter amid so many models. Adding to the confusion is the fast-rising popularity of a new sort of graduate education, the "first professional" degree. This is a highly differentiated degree whose content and structure are based on utilitarian and measurable objectives. It is directed toward immediate outcomes, and it mirrors contemporary values. At issue is not the devaluation of the master's degree but the new dominance of professionalism at all levels of higher education.

Quality Control How to assess program quality has been widely discussed for the past 20 years. In graduate education, the arts and science doctorate has received most attention. Only in the past few years, however, have multi-dimensional indicators of quality (Jones, Lindzey, and Coggeshall, 1982) been developed to augment the Cartter (1964) and Roose-Anderson (1970) systems of reputational rankings.

Accreditation agencies and state coordinating boards have devoted considerable resources to developing consistent, measurable standards for approving and improving new programs. But three problems have hampered their efforts. (1) Program diversity makes generic criteria difficult to sustain. (2) Public universities feel that they must respond to the needs of non-traditional students. (3) The public sector cannot sufficiently influence the private sector. How — or whether — universities will control quality in a time of retrenchment, fiscal constraint, and competition for students is not yet clear.

Theory-Practice Dilemma As the master's degree has become more professional in orientation, the dichotomy between theoretical and practical knowledge has widened. This is particularly true in practitioner-oriented degree programs.

At a time when higher education is being admonished to raise standards, strengthen requirements, and disband unproductive programs, corporate education is booming. Business spends an estimated $40 billion to $60 billion each year on management training, much of it comparable to advanced-degree programs. Eurich's report for the Carnegie Foundation (1983), for example, describes 18 corporate colleges, 11 of which offer a total of 24 master's degrees. The fields in which corporate inroads are most apparent are health sciences, applied sciences, and teacher education.

At issue is whether corporate programs, which are most often highly pragmatic, are held to one standard while university programs are held to another. The growing popularity of alternate routes for certifying teachers, paid internships, and other "emergency" measures raises the same concern.

How to balance practical knowledge and skills with conceptual understanding of a discipline is an overriding issue, particularly in the disciplines served by professional degrees.

Innovation and Change In the 1960s and 1970s, change in higher education was a function of the rapid growth of graduate and professional education, pervasive vocationalism, and the introduction of public policies to strengthen access. Today, in a time of retrenchment, change is linked to enrollment management, the job market, and external and institutional standards of excellence. Graduate and professional schools have few

incentives to establish new programs when external agencies seek higher standards, greater productivity, and more measurable outcomes (Folger, 1984). Disincentives to change extend beyond the costs of new programs to continued preference for theoretical over applied programs, for vertical specialization over breadth, and for established over emergent programs (Albrecht, 1984). External degrees, experiential learning, cooperative education, consortia, combined degrees, interdisciplinary programs, computer technology, and distance learning are now changing graduate education. Administrative leadership, faculty support, and state incentives will be needed, however, for substantive change to continue.

New Paradigm, New Concerns

I think that we are confronting a new paradigm of the master's degree. The new type of degree is pragmatic, linked to student needs and the job market, and driven by external standards; it emphasizes skills and training more than research and scholarship. If this is so, we may need to rethink our assumptions about the master's degree and its relationship to the broader purposes of graduate education.

As the outlines of that new paradigm become clearer, the following considerations will assume greater importance.

1. The Master of Arts and Master of Science may be of doubtful utility in arts and science doctoral programs. The original purpose of these degrees was to provide the post-baccalaureate male with a second credential from his alma mater. As the culmination of the first year of graduate study, though, they have little meaning. As a consolation prize for people who stop short of the

Ph. D., they have even less. Therefore, further discussion of their purpose in doctoral programs seems warranted.

2. The master's degree is overwhelmingly professional and largely terminal. As a professional degree, it is closely aligned with specialized accreditation agencies, professional associations, and potential employers. That these interests are typically balanced with the mission of the university granting the degrees has implications for the ways master's programs are administered, staffed, and sustained, for the populations they serve, and for the outcomes they produce. All these factors affect the diversity, quality, and integrity of the master's degree.

3. Although professional associations, universities, and potential employers assume that the master's degree has financial implications, no data reinforce their observations. We do have data on enrollments, degrees conferred, and job placement; we assume that master's degrees are money makers or, conversely, that they are costly and inefficient. But data are not readily available on faculty salaries, tuition income, costs of programs and ancillary resources. The kinds of studies done in the mid-1970s by the National Board of Graduate Education and the Carnegie Commission on Higher Education have not been extrapolated to professional degrees except in business, science, and engineering. Also, we urgently need to assess the costs of proliferation, overspecialization, and diversity within and among professional master's degrees.

4. Quality control is problematic. Standards for new programs and program reviews help control quality. But the creation of degrees and new specialities is largely the responsibility of each institution, particularly of independent institutions; when a new need is perceived, a program is often quickly devised to meet it. The development of criteria for assessing quality in the master's degree needs more emphasis. "Faculty productivity" should not be the sole criterion, particularly for programs clearly rooted in practice, technology, and the acquisition of skills. When a largely part-time student body is motivated mostly by its need for professional credentials, scholarly productivity may be irrelevant as a measure of quality.

5. Diversity and proliferation have clouded the meaning of the master's degree. Yet despite repeated attempts to codify the master's degree, proliferation continues unabated, as evidenced by the new taxonomy of the Department of Education (see Malitz, 1981). As a result, the number of reportable subfields more than doubled from 308 to 633 (OERI, 1985).

6. The needs of part-time, adult students and of mixed age groups have not been adequately addressed. Flexible scheduling, concentrated time frames, self-paced study, experiential learning, technology-based delivery systems, and student-mentor relationships are rare in master's programs. We continue to impose the credit-based classroom model on all post-baccalaureate students. We continue to accept standardized test scores and cumulative grade point averages as predictors of success in professional degree programs. We continue to neglect services for commuting full-time employed students and to regard adult students as consumers rather than producers of knowledge.

Ultimately, I think, we need to recognize that the master's degree is distinct from other graduate degrees: it is a class of degrees rather than a single generic degree. Only then can we begin to resolve issues like those I have addressed in ways that produce a variety of master's degrees that strengthen post-baccalaureate education.

This paper has been adapted from my monograph, The Master's Degree: Tradition, Diversity, Innovation, ASHE/ERIC Higher Education Report No. 6, Washington, D. C.: Association For the Study of Higher Education, 1986.

References

Albrecht, P.A. "Opportunity and Impediment in Graduate Program Innovation," Keeping Graduate Programs Responsive to National Needs. Edited by M. Pelczar and L. Solmon. San Francisco: Jossey-Bass, 1984. Pp. 11-20.

Berelson, B. Graduate Education in the United States. New York: McGraw Hill, 1960.

Dinerman, M. "Study of Baccalaureate and Master's Curricula in Social Work," Journal of Social Work Education. 18:84-92, Spring, 1982.

Eurich, N. Corporate Classrooms. Princeton, N.J.: Carnegie Foundation For Advancement of Teaching, 1983.

Folger, J., ed. Financial Incentives For Academic Quality. San Francisco: Jossey-Bass, 1984.

Gordon, R. and Howell, J. Higher Education For Business. New York: Columbia University Press, 1959.

Hartman, A. "Concentrations, Specializations, and Curriculum Design in MSW and BSW Programs." Journal of Social Work Education. 19:18-27, Spring, 1983.

Jones, L. V., Lindzey, G. and Coggeshall, P.E., eds. An Assessment of Research-Doctorate Programs in the United States. Washington, D. C.: National Academy Press, 1982.

Malitz, G. A Classification of Instructional Programs. Washington, D. C.: National Center for Education Statistics, 1981.

Office of Educational Research and Improvement. "Bachelors, Masters, and Doctors Degrees Conferred by Field, 1982-83." Unpublished data, 1985. Pp. 44-64.

Stolzenberg, R. M. "The Changing Demand for Graduate Management Education." Selections. II:10-24, Spring 1985.

Whaley, W.G. "American Academic Degrees," Educational Record. 47:525-537, Winter 1966.

PROGRAM REVIEW: ONE STEP IN THE RIGHT DIRECTION

Martine F. Hammond
Director of Academic Affairs
Kansas Board of Regents

Criticizing the master's degree appears to be a venerable tradition in American higher education. Suggestions for change, sometimes acted on and sometimes ignored, have come from professors, universities, academic associations, state departments of education, and many other sources.

Against this background, the recent changes produced by the Kansas Board of Regents' process of program review seem modest perhaps, but effective. Martine Hammond describes how that process led to a reaffirmation of some basic standards for graduate programs in the public universities of Kansas and summarizes some of the initial consequences. —Editor

One of the many interesting results of academic program review in Kansas is a move to strengthen the master's degree. History reveals a sometimes-troubled past for the master's degree in American universities, but recent actions of the Kansas Board of Regents have challenged what an earlier critic of the master's degree termed "collusive mediocrity."

Brief History of a Degree The master's degree has received faint praise and frequent criticism in the 350 years of its existence in American higher education. Though not all present-day degrees descend from the medieval university, the master's degree clearly does (Reed, 1936). Transported to the colonial college from Oxford and Cambridge, the Master of Arts was a three-year degree with no prescribed subjects and no residence requirements. Some master's candidates, usually prospective clergymen, would remain in residence at a college to "read" divinity systematically and perhaps also teach a college class or two (Morison, 1936). But as late as 1825 the Master of Arts degree was, for

example, awarded "in course" to any holder of a Bachelor's degree from Harvard who let three years elapse and paid a fee. Said the townspeople of Cambridge, "All a Harvard man has to do for his Master's degree is pay five dollars and stay out of jail" (Morison, 1936b). Harvard's practice was typical for the era.

The few attempts made in the colonial period to strengthen the master's degree were not successful, and not until 1870 was it transformed into an earned degree. Nonetheless, in 1905 critics deplored the too-great variety of master's degrees: honorary degrees given to people with no academic training, degrees given to graduates for courses pursued in absentia, degrees given for a year of residence study that was often just a fifth year of undergraduate work. Only occasionally were degrees given for a year of genuine graduate study (Adams, 1985).

Attempts to strengthen the master's degree continued. In 1909, Johns Hopkins designed a rigorous two-year degree for college teachers, reserving the Ph.D. for students who made first-rate contributions to original research. But the experiment did not succeed. For by this time a less rigorous master's degree had become practically standard for America's secondary school teachers.

Criticism of the degree continued. In 1932 an investigating committee of the American Association of University Professors expressed dissatisfaction with the degree. Complained Professor William Nitze of the University of Chicago, "Outstanding universities in this country never have the courage to resist public opinion and tell people the facts, namely that education is necessarily a selection of the best, that it is aristocratic" (and not democratic) (Nitze, 1921). Twenty-five years later, in 1957, a committee on policies and graduate education reported to the American Association of Graduate Schools that in many institutions the M.A. remained either a "consolation"

degree or a "quick" degree awarded for superficial performance (New York Times, 1957). In 1972, following a two-year study of Master's programs in New York, the state education department announced that many programs differed very little in quality from undergraduate programs. "It would seem that an attitude of collusive mediocrity has been adopted among students, faculty and administration at the Master's level," stated the department's Bureau of College Evaluation (New York Times, 1972).

Signs of Change in Kansas The activities of the Kansas Board of Regents related to the master's degree did not originate with awareness of a long-term national problem. Instead they grew directly out of academic program review.

Since 1983 the nine-member Board of Regents, which governs the six public universities in Kansas, has systematically reviewed programs. Review is based on institutional self-study, but carried out by Regents and Regents staff. Because they are authorized to approve or disapprove each institution's academic programs, the Regents have wide latitude in influencing academic policy.

In the course of the 1985 review, faculty and students from the social sciences complained that mixing undergraduate and graduate students in classes was causing problems. Advanced students complained that work was sometimes redundant; undergraduates complained that they were expected to know too much. Faculty acknowledged that teaching heterogeneous groups was difficult. The review also revealed that a majority of the graduate work of many students consisted of independent study, readings courses, and research. While this type of study was viewed as an integral part of any graduate program, Regents, as well as others, naturally consider regular classwork with a critical mass of peers as vital (Minkel and Richards, 1986).

One of the actions the Board considered was a recommendation that graduate students take 50% of their course work in classes for graduate students only. But after discussion with the Council of Chief Academic Officers, the Board took a less stringent position.

The Board's new policy was based on a plan for course numbering that all Regents institutions had adopted in 1972. Courses numbered 500 to 699 were primarily for juniors and seniors but included some Graduate I or Master's students. Classes at the 700 to 799 level were primarily for Graduate I students but included some undergraduates. The numbering system also identified types of classes. Regularly scheduled academic courses with designated credits were numbered "0," laboratory courses were numbered "1," and "experiential" courses (practicums, internships, practice teaching, and field experiences) were numbered "2." To balance independent study with other work, the Regents decided that "all graduate students, regardless of degree sought, should complete at least half their course work in 0, 1 and 2 type courses." They also agreed that "students pursuing a graduate degree at the master's level should complete a significant majority of their course work in 700-level courses or above." "Significant majority" was interpreted to mean 60% or more.

To insure that the course numbering system was being followed, institutions were asked to monitor enrollments for one year and report to the Board. The information they supplied, which is summarized in Table I, confirmed that as many as 15% of courses were misnumbered and that sections of independent study sometimes reached nearly 70% of all graduate sections.

October 1986

Table I

Graduate Enrollment Survey, Summer, 1985 - Spring, 1986

Institution	Total Courses Reviewed	Courses Incorrectly Numbered		Total Sections Included in Preceding Column	Sections of Independent Study		Sections 500/699 (excl. Independent Study) Requiring Higher Number		Sections 700+ (excl. Independent Study) Requiring Lower Number	
		Number	%		Number	%	Number	%	Number	%
1	4,310	353	8.1%	1,551	1,081	69.6%	282	18.1%	188	12.1%
2	2,285	179	7.8%	310	134	43.2%	70	22.5%	106	34.1%
3	1,161	150	12.9%	176	39	22.0%	105	59.6%	32	18.1%
4	1,598	63	3.9%	110	16	14.5%	42	38.1%	52	47.2%
5	1,527	125	8.1%	348	212	60.9%	15	4.3%	121	34.7%
6	1,016	156	15.3%	419	255	60.8%	5	1.1%	159	37.9%
TOTALS:	11,897	1,026		2,914	1,737		519		658	
AVERAGES:			8.6%			59.6%		17.8%		22.5%

Course Numbering: 500-699 Upper division, undergraduate: Primarily for juniors and seniors, but including some Graduate I students.
700-799 Upper division and graduate: Primarily for Graduate I students, but including some undergraduates.

To determine what types of courses graduate students were taking and how many of those courses were at least at the 700-level, institutions were also asked to conduct a stratified random sample of the degree programs of May 1986 graduates. That survey of graduate transcripts, which is summarized in Table II, showed that most students were completing 50% or more of their course work in 0, 1 and 2 type classes, but at one institution 30% of the graduates were completing their degrees primarily through independent study and research. At another institution, 20% of the graduates were completing the master's degrees through undergraduate classes. These degrees were more of BA/BS quality than MA/MS quality.

Table II

Graduate Transcript Sample Survey — Spring 1986

Institution	% of sample 50%+ of courses in 0, 1, & 2 courses	% of Masters Degrees 60%+ in 700+-level courses
1	71.62%	88.33%
2	93.94%	95.83%
3	100.00%	95.83%
4	95.24%	100.00%
5	87.50%	92.86%
6	94.12%	81.25%
AVERAGE	85.56%	91.77%

*Sample size of less than 3 so percentage not statistically significant.

Since the surveys were completed, one institution has agreed to renumber all misnumbered courses and reevaluate the content by the summer of 1987, and the other institutions are evaluating their misnumbered courses. A second survey is scheduled for September 1988. The Board has said that it expects no more than four percent of an

institution's courses to have an incorrect mix of students by then and that 100% of master's graduates will conform to the Board's policy on type and level of classes taken. Institutions will also be asked to find out whether specific disciplines tend to have an incorrect mix of students in 500-, 600-, and 700-level classes.

The hope is that past and future surveys will engender discussion of the curriculum and the correlates of quality in the master's degree. Though many institutional constituencies in the past have seen the Board's interest in program review as almost exclusively financial, its review of graduate programs demonstrates the Board's concern for academic quality.

If I were to hazard a more general conclusion from recent experience in Kansas, it would be that program review can supply an impetus for strengthening the master's degree. Other sources and means of change are doubtless necessary as well, especially given the ambiguity that has surrounded the master's degree ever since it reached our shores. But if a governing board uses the information it gains through program review to reaffirm policies that promote some reasonable standards for graduate work, that can be one step in the right direction.

References

Adams, George Burton. "The Degree of Doctor of Philosophy," Educational Review, Vol. 30. June, 1985. Pp. 35-36.

Mickel, C. W. and Richards, Mary P. Components of Quality in Master's Degree Programs. Knoxville, Tennessee: Tennessee Conference of Graduate Schools, 1986.

Morison, Samuel Eliot. Harvard College in the Seventeenth Century. Cambridge, Mass: Harvard University Press, 1936. Vol. I, p. 69.

Morison, Three Centuries of Harvard. Cambridge, Mass: Harvard University Press, 1936. P. 107.

New York Times, November 13, 1957. P. 28.

New York Times, April 3, 1972. P. 1.

Nitze, William A. "Course Requirements vs. Research Requirements for the Degree of Doctor of Philosophy." Proceedings of the Association of American Universities. 1921. Pp. 60-61.

Reed, Alfred, A. "Contribution of the Medieval University to American Higher Education." Carnegie Foundation for the Advancement of Teaching, 31st Annual Report. 1936. Pp. 60-61.

STRONGER REQUIREMENTS AND A NEW ALTERNATIVE

Robert R. Appleson
Director, Assessment and Program Review
Tennessee Higher Education Commission

Another state that has used program review to strengthen the master's degree is Tennessee. There, the suggestions for standardizing the formal requirements for master's degrees originally developed by the Tennessee Higher Education Commission and the Tennessee Conference of Graduate Schools have been put to use by governing boards and institutions. The basic thesis is relatively simple: require that work on the master's include a documented culminating experience.

Robert Appleson, not content simply to describe the evolution of this idea, suggests another. Why not create a new degree, a "P. S." ("Professional Supplement")? He feels that a quick, clearly vocational, and clean alternative to a master's degree would meet a real need and also relieve some of the pressure credentialism now places on the master's degree. —Editor

Tennessee, and specifically my agency, came face to face with the problem of devalued master's degrees in 1983. The circumstances of this confrontation are instructive because they reflect an increasing public concern that extends well beyond the campus. In 1983, a member of the lay commission to whom we answer stopped a routine proposal for a new master's program dead in its tracks. Why, he wanted to know, did it not require a thesis? We replied that many master's programs throughout the country do not require theses because a thesis is considered less essential than other program components to mastery of the field. Maybe, offered the Commission member, that's why so many master's graduates cannot write. While I wouldn't directly connect the thesis with writing skill, the Commission member's doubts about standards in master's degrees proved all too justified.

Following this exchange on master's theses, we studied requirements in master's programs on our public campuses. Here's what we found: 112 of the 347 public master's programs (about one-third) required a thesis. Of the non-thesis programs, 39% had no alternative culminating experience, such as an exhibit or practicum, that would demonstrate creativity or the ability to apply knowledge independently, and well under half even required a comprehensive examination. Even in programs that required culminating experiences, work was rarely documented, thus limiting any review of quality. This was a sad record, and we could take little solace from hearing that other states faced similar situations.

Tennessee has since taken steps to reconstitute and strengthen formal requirements for master's degrees. I'd like to describe those steps and some of the results that are already apparent. Then, venturing beyond what has happened so far to something I would like to see happen next, I'd like to propose a new sort of degree, one that would have value in and of itself and that would also relieve some of the pressure on the professional master's degree.

Stronger Formal Requirements

To address our problem, we relied on the 1976 statement on master's degrees issued by the Council of Graduate Schools of the United States. That statement gave, in our reading, three standards for student performance:

1. coherent understanding of the field
2. effective communication in the field
3. creativity or independent application of knowledge in the field.

We recognized that no set of procedural requirements could ensure fulfillment of these standards. That is, a poor thesis may not demonstrate creativity or independent application of knowledge, and a program with no formal requirements may be better than a similar program that requires both a thesis and a comprehensive examination. Yet peer reviews of a number of our master's programs suggested some connection between poor quality and lack of formal requirements.

With this background in mind, the Commission staff recommended and the Commission adopted in 1984 a classification of requirements for master's programs and asked the state's two public governing boards to act. The classification went like this:

> Programs that demand no written culminating experience and no written comprehensive examination — "Type A" programs (the "A" for "Anemic").
>
> Programs that demand a written comprehensive examination but no written culminating experience — marginally acceptable but need review.
>
> Programs that demand written culminating experience — acceptable.

Let me explain that the reason for the "written" requirement was to provide a record of students' effectiveness in communication, as well as a record of overall standards and performance. We were not disqualifying an exhibit of sculpture as an M.F.A. student's culminating experience. Rather, we were adding to the exhibit the student's description of his work.

Perhaps more important than this classification of degree requirements was our recommendation that the Tennessee Conference of Graduate Schools (TCGS) be invited to comment on the classification. Though some people regarded the invitation as little more than academic courtesy, it resulted last year in an insightful and thorough set of guidelines that go well beyond the staff's original classification of requirements (see appendix). The TCGS guidelines mandate, for example, a comprehensive examination (though not necessarily a written examination) in addition to a culmination experience.

They also extend into such areas as admissions and ratios of exclusively graduate course hours to hours crosslisted in upper-division baccalaureate courses.

I am pleased to report that the Commission embraced the TCGS document and that we now use it to review proposals for new master's degrees. Governing boards and campuses are also using the guidelines to evaluate existing programs. Most "Type A" programs have already been restructured to include written culminating experiences, and the remainder will be restructured by the end of this year. While we recognize that formal degree requirements leave untouched several vital signs of quality in master's programs — notably, faculty scholarship — we believe that attention to these requirements has brought some improvement.

A New Kind of Degree

I'd like you to consider now something beyond this approach, something we've not even discussed formally in Tennessee. It's a new kind of degree, which I will call the "Professional Supplement." But before describing this degree, let me explain the circumstances that inspire it.

During the last several years of reviewing proposals for new master's degrees, I've noticed a commonality of arguments for new degrees in professional areas. Here, I'm excluding the "general purpose" degrees, like the M.B.A. and the M.P.A., that are tightly structured, but I'm including master's degrees in distinct areas such as nursing or journalism that are (ironically) often loosely structured. What I've noticed is this common justification for new programs: people in the professional workforce need to update their skills. Professionals want training in the latest technology, the latest laws and regulations, and the latest strategies in their field. That master's programs in these

areas lack structure should hardly come as a surprise because the "latest" in professional expertise changes much more abruptly than the "latest" theory of vector spaces in mathematics. As a consequence, the course format in these professional master's degrees frequently consists of three 3-semester hour courses, which roughly cover the core updating, plus 21 hours selected with the approval of the student's committee. (Of course, if we're talking about part-time students, the hours approved by the committee are often synonymous with whatever the students can schedule.)

Some of you will no doubt regard this phenomenon as credentialism, and there's surely some truth to that view. On the other hand, I believe there's often a real need for updating skills and for a credential to demonstrate this achievement. But what kind of credentials are available? If the student already has a bachelor's degree, I don't think we want to give him another one. Then there's the "Continuing Education Unit" (CEU) jungle; nobody knows what the unit means. A third option is the "certificate." But, let's face it: a certificate sounds like something you get if you can't get an associate degree. That leaves us with the master's degree. So today we see master's programs in these professional areas, complete with thesis or alternative written culminating experience to satisfy our guidelines.

Now enter the Professional Supplement degree.* As its initials suggest, this credential would serve as a postscript to the baccalaureate. It would require 15 semester hours, generally including a 9-hour core. Students would be expected to demonstrate knowledge in the areas updated by the program and to communicate effectively in those areas. If

*At least two institutions, the University of South Carolina and Simon Fraser University (British Columbia) offer a postbaccalaureate credential short of the master's. The graduate school at South Carolina has for a number of years run fairly successful 18-hour programs in, for example, gerontology, primary care nursing, teaching English as a second language, and museum management.

we had the Professional Supplement, we'd have an excellent alternative to professional master's degrees. We could keep the master's degree from being devalued further.

At least two objections do come to mind, however.

Look at what happened to the Doctor of Arts degree, you might say. Here was a new degree designed for an audience that might not have been well-served by the Ph. D., yet we see very few people using this degree today. That's an important point, but consider this distinction: unlike the Doctor of Arts, the Professional Supplement would require less time and less effort to complete than the traditional alternative.

A second objection might be that offering the Professional Supplement would increase the number of degrees and we should avoid the proliferation of degrees. Yes, proliferation does create an administrative burden. But, I submit, the substantive problem with proliferation is lack of definition: when an institution offers an M.S. in Broadcast and an M.S. in Communication, I wonder whether the Broadcast graduates learn anything about communication. The Professional Supplement would hardly contribute to this problem, and campuses might well form "Professional Divisions" (which might or might not be part of the graduate school) to handle the administrative burden if the P.S. became popular.

I do expect that the P.S. would become popular, mainly because it would replace the professional master's degree for people with less time to spend on graduate work. Because of the shorter time involved, I believe more companies would be willing to pay the tuition of employees in a Professional Supplement program. We would still need professional master's programs even in such fields as nursing and journalism, to train the

limited number of students aiming at careers as educators or scholars, not as practitioners. But we would not need those master's programs at as many campuses.

Everyone will not be happy, or course. Accreditation agencies and other professional groups that have pushed for graduate training beyond what can be reasonably justified will oppose the Professional Supplement. I hope those of us in higher education, at the state level and on campus, will hold firm. That means embarking on this new degree together. Thus, I earnestly solicit your ideas about this initiative and, especially, your suggestions for improvement. With those ideas and suggestions, we can restore value to the master's degree.

THE ADDITIVE FALLACY AND AN ADDED CONCERN

Joyce V. Lawrence
Dean of Graduate Studies and Research
Appalachian State University

"The additive fallacy." That is the term Joyce Lawrence uses when reacting to the points made by Glazer, Hammond and Appleson. She describes what she considers a conceptual weakness of too many master's programs. To assume that knowledge increases in course-credit increments is wrong, says Lawrence, and programs based on that assumption deny students essential opportunities to synthesize what they learn.

On a very practical level, Lawrence reminds institutions of the importance of self-assessment. "We must control the quality of our own programs," she points out, "or it will be done for us." —Editor

The devaluation of the master's degree needs to be discussed. It needs the careful study and research that Judith Glazer has begun, and it needs the action that Appleson and Hammond have initiated through their state boards and commissions. Those of us who are vitally concerned with higher education appreciate the ideas of concerned scholars as we move to meet societal and marketplace demands while continuing to meet what we consider educational demands.

How can we hope to develop the skills needed by a fast-changing society and still maintain our concern for the holistic and humane development of individuals? These individuals will be called on to make important decisions on strategies for peace, protection of our environment, and the education of future generations. Those of us in higher education simply must not lose our vision, holding the educational future hostage to the marketplace's need for instant expertise.

The Additive Fallacy

I'd like to pose a pragmatic question: what is the difference between a "bachelor's + 30" and a master's degree? To say they are the same is to say that a master's degree is nothing more than an accumulation of course credits. This is wrong. It stems from what can be called "the additive fallacy."

The additive fallacy assumes that one's competence increases in an additive manner as one accumulates credits. It assumes, for example, that completing 15 hours of a program makes one precisely half as competent as one will be at the end of a 30-hour program. Totally missing from this assumption, though, is the idea that coursework and experience must be integrated, through comprehensive examinations, theses, research papers, internships or other methods of synthesizing knowledge. The education of an individual requires this kind of integration, so a whole program must be greater than the sum of the courses in it.

Actually, one of the reasons that I am only cautiously optimistic about the idea of a "Professional Supplement" degree is that the P.S. is explicitly a collection of courses, a kind of "quick-fix" that may not be transferable to a different job or a different state.

In recent visits to nearby states to evaluate graduate programs, I have observed firsthand how state departments of education have fallen into the trap of assuming that a collection of individual courses constitutes a whole. If those of us in higher education believe in the synthesis of graduate courses, we must speak up. We must become advocates of a position that needs our support. It may be difficult for graduate schools to advocate standards, but I am not willing to abdicate our responsibility to try.

The Need for Self-Assessment

Higher education cannot expect to avoid self-evaluation and assessment, for at least two reasons. One is that review of graduate programs is most effectively conducted internally. Another is that failure to conduct careful and thorough internal reviews may lead to external review. Apparently it has been necessary for a state board to force the renumbering of courses in order to keep graduate instruction at the graduate level and undergraduates out of graduate courses. But I do not think it should be necessary. In my office, for example, we use the computer to track undergraduate students who have slipped into graduate courses without our permission. We simply write the students and say, "Drop the course, or we will drop it for you by next Friday," thereby using internal means to reach a goal that might otherwise be externally imposed.

There are modes in the middle, modes of cooperation. The Tennessee plan to classify new programs seems to have worked rather well, and I applaud the cooperation of state education officials with the graduate deans of Tennessee. Their publications have been very helpful to a number of graduate schools in our region.

Elsewhere, graduate schools, and graduate deans in particular, may not have assumed their leadership roles readily enough. Even though graduate deans often have only persuasive power, not real power, we should be able to depend on them to advocate quality. They need to speak up, even if too often they are not listened to. They need to speak up, even if they are not powerful enough to insist on quality. The limitations on the power and influence of deans are not excuse for remaining silent.

Even as graduate schools advocate quality, they must be sensitive to the changing world of adult students. Firmness in handling student matters can be interpreted as non-caring. Unwavering adherence to standards can be interpreted as non-responsiveness.

On the other hand, we must be wary of "Get-Professional-Quick" schemes that threaten to multiply problems with quality.

To summarize, the master's degree still has great value. But defining the degree as a collection of courses violates the idea of the integrated whole and lessens the degree's educational value. A second, and related, point is that we must control the quality of our own programs or it will be done for us. We must not fail to use our best mechanism for improving programs: self-evaluation.

A SKELETON IN THE CLOSET

Robert J. Barak
Deputy Executive Secretary
Iowa Board of Regents

Perhaps, suggests Robert Barak, the best way to attack the problems posed by weak master's programs is to take action on four fronts.

> National blue ribbon panels, like those that have recently examined undergraduate education, could establish the basis for reforming the master's degree.
>
> Accrediting agencies could take a closer look at master's programs.
>
> States could use the program review process and other means to focus attention on master's programs and bolster quality.
>
> Institutions could evaluate their own programs.

Barak proposes some criteria for institutions to use in the evaluation process. He also briefly compares evaluation processes. Since, as he points out, different processes serve different purposes and use different methods, coordination is essential. —Editor

Since the early years, when getting a master's required no more than keeping out of jail for three years and paying five dollars only the length of time required for the degree (now less) and the cost of the degree (now more) have changed. The master's degree remains the weakest collegiate degree in America. Yet little is being done to address this embarrassing situation. If there is a skeleton in higher education's closet, surely it is the poor quality of master's degree programs that have been consistently neglected over the years.

The purpose of this section is to raise some issues of quality and provide some standards by which master's programs should be judged at national, state, and institutional levels.

Issues

Though the Educational Testing Service, Carnegie study groups, the Education Commission of the States, and other organizations have studied graduate education, generally about ten years ago, there has been no comprehensive national assessment of the master's degree. Likewise, a search of the literature yields many publications on graduate education, but precious few on the master's degree. If the degree is mentioned at all, it is usually mentioned only in passing as a stepping stone to the doctorate or as a consolation prize.

From recent state reviews of master's programs comes evidence of some consistently disturbing patterns of low quality. One state found, for example, that

> . . . many master's programs, especially at the public colleges, were ill-conceived and loosely administered and served no clear end. . . .

Another state found master's programs that

> . . . appear to serve only one purpose and a misguided purpose at that, to provide Teaching Assistants for the undergraduate program. Given the apparent low admission standards to the master's program, one can see a never-ending spiral of mediocrity feeding mediocrity. . . . To make matters even worse, the program notes as one of its "advantages" the fact that TAs have "complete responsibility" for the courses they teach.

Reviews in several other states have revealed that master's programs frequently lack the intellectual rigor expected of a graduate program. In a midwest state, for example, a recent review noted that most of the master's programs at one university gave credit for courses that were largely undergraduate in nature and even remedial. The same review

noted that often less than one-quarter of the courses credited toward the master's degree were exclusively for graduate students.

In yet another state, a study of teacher certification standards revealed that many colleges admit almost anyone who applies to master's programs in education, even applicants who cannot meet the institution's own admission standards for graduate study. The rationale is that to deny practicing teachers admittance to a master's program in effect is to deny them a living, since the master's is required for permanent certification. Still other universities grant the master's only as a consolation prize to students who are unable to complete the doctorate.

Other qualitative issues arise in the many programs populated largely if not exclusively by part-time students and taught by part-time adjunct faculty, in locations without necessary support resources.

In summary, recent state studies reveal that many master's degree programs seem to lack meaningful admission standards; clear and appropriate purpose; rigor appropriate to the graduate level; course standards appropriate to graduate work; and faculty dedicated to the needs of master's students.

Standards

The frequency of these problems and their seriousness speak to the need for a massive effort to improve master's programs. The pervasiveness of the problem suggests that action at any one level is likely to be inadequate. More promising is comprehensive and coordinated action at the national, state and institutional levels.

National Efforts Since some of these issues have been begging for resolution for more than two hundred years, it is about time to mount a major national effort. It is time for a comprehensive national assessment of such issues as:

the relevance of the master's degree;

the role of master's degrees in a changing work force and society;

the educational needs of an increasingly diverse student population;

the need to improve the assessment of student and institutional performance;

the means to motivate faculty and reward them for improving master's programs; and

the need for sharper distinctions in purpose and expectations.

The "blue ribbon panel" approach seems promising, especially given the recent success of using that approach to undergraduate education. The American Council on Education cites this evidence of the change brought by national attention to issues in undergraduate education.

* A majority of institutions (61 percent) have discussed the national reports in faculty meetings. Seventy-two percent of baccalaureate colleges have had these discussions, as have 67 percent of universities and 52 percent of two-year institutions.

* Colleges and universities are introducing changes in the academic programs and practices in response to the reports. About 6 in 10 institutions have changed or plan to change their academic programs. Fifty-eight percent indicated that they changed or planned to change their research and assessment procedures; 52 percent changed or planned to change procedures in student services.

* Two-year colleges were more likely to change their academic programs (41 percent) than universities (33 percent) or baccalaureate colleges (29 percent) (Cartter, 1986).

Another avenue to national action is accreditation. The accreditation of master's programs is a mixed bag. Some accrediting groups evaluate master's programs fairly rigorously. This is especially true when a group focuses on a specific professional program. Other accrediting groups, however, review the master's only as a part of the doctorate or ignore it entirely. Another problem is that some master's programs are not subject to accreditation. Generally speaking, master's programs have few, if any, of the problems noted earlier when the accrediting group focuses on the master's degree. Troubled programs are most prevalent in fields where accreditation does not exist or where reviews are inadequate.

State Efforts Ideally, a national panel could establish a strong base on which states can build. Perhaps most helpful then would be a concentrated state-level effort to:

improve public support for master's programs;

delegate responsibility for improving master's education to institutional leaders;

evaluate state policies on higher education for their potential impact on master's education;

encourage institutions to strive for excellence in master's education that reflects their distinctive missions;

provide incentives to institutions for encouraging faculty to improve master's education and eliminate disincentives;

encourage the timely, systematic evaluation of all master's programs; and

monitor the effectiveness of the state's system of higher education in meeting state goals for master's education.

One problem is that states and state boards of higher education vary in the degree to which they assess master's programs. While some state boards can address issues of quality directly, other boards have no authority to review programs or must limit their reviews to specific programs (e.g., undergraduate) and institutions (e.g., public). In most

states, the state board's success will depend heavily on its ability to cooperate with colleges and universities.

Institutional Efforts Even with broad national guidelines and state attention to issues of general state importance, the primary responsibility reforming the master's degree rests with university faculty and administrators.

Some institutions consistently and vigorously review master's programs; others consistently ignore them. Where a master's program is in a department that offers a Ph.D., it may be considered only an intermediate step. Where the master's is a terminal degree, quality may or may not be better; one difficulty, noted earlier, is that master's candidates are sometimes seen primarily as sources of teaching assistants who can provide relatively cheap undergraduate instruction.

There is some disturbing evidence that universities are not very interested in reforming master's programs. As reported in an article describing a survey of master's degrees, few if any institutions have indicated an interest in taking a hard look at master's degrees and following up with an extensive reform effort (Chronicle of Higher Education, 1981). Yet the need for reform is great.

Reform should begin, I suggest, with a comprehensive assessment of master's programs. If timely and systematic program review is not currently taking place, this would be a good time to begin. If review is under way, a "meta-review" could show whether programs meet current objectives (Barak, 1987).

In any event, review of master's programs should be multi-dimensional. Following are the major criteria that have been and should be used in reviewing master's programs.

Major Criteria

Cost (applicable to institution and state evaluations)	What are the costs of operating this program? How do these costs compare with the costs of other programs in the institution and comparable programs elsewhere? Are the costs reasonable?
Need (applicable to institution and state evaluations)	Do workforce projections indicate a need for the program? Do developments in the field justify the program? Are enough potential students interested in the program? Is there a valid intellectual need for the program?
Quality (applicable to institution and state evaluations)	Is the faculty adequate in size and preparation, interest, and time available? Are instructional resources (support staff, equipment, facilities) adequate? Are resources likely to be available in future years? Is the program likely to meet accreditation standards? If not, how and how soon can it be accredited? Does the program meet other standards? Does it meet the Council of Graduate Schools' guidelines for master's programs? What is the relationship of the program to the undergraduate or graduate offerings of the unit(s) housing it? Can graduates find employment in their field? Are employers satisfied with the quality of graduates? Does the program contribute to the intellectual skills of graduates?
Centrality (applicable to state and institution evaluations)	Is the program central to the mission of the institution in which it is housed? Is the program consistent with the institution's plans and goals? Does the program adequately serve a clear and appropriate purpose?
Duplication (applicable primarily to state boards)	Does the program unnecessarily duplicate similar programs in the state or area served?
Marketability (applicable primarily to institutions)	Does the program have a clear market advantage?

Coordinated Evaluation The evaluation of master's programs needs to provide a balanced and comprehensive assessment while avoiding redundant and perhaps even counter-productive efforts. Accreditation, state review and institutional review are all valuable forms of evaluation in their own right, and they can all make a valuable contribution to a reform effort. If, however, they are not well coordinated, and if the different purposes

they serve are not well understood, reform may not succeed. As Table 1 shows, there are important differences of emphasis in these three types of evaluations. Accreditation has emphasized compliance with minimum standards, although it should be noted that accreditation leaders have been discussing the possibility of moving beyond minimum standards. Only rarely does accreditation review lead to the termination of a program. State reviews consider program quality, but they generally focus on factors such as need, effectiveness and consistency with the mission of the institutions and possible duplication of programs. Program termination can result from state reviews. Institutional reviews (especially sub-institutional reviews) tend to address program improvement, quality, and, increasingly, resource allocation.

These differences in purpose and method suggest the need to insure that the factors deemed relevant to reform are actually addressed. Far too often one hears the comment that program review is not needed because a given institution is accredited. But regional accreditation addresses institutions rather than programs. The program accreditation process is sometimes extremely demanding, but sometimes almost meaningless. And for many programs (perhaps for as many as half of all master's programs) there is no appropriate accrediting body. For these reasons accreditation must be supplemented with other meaningful types of evaluation, preferably at the institutional level. If this is not forthcoming, state reviews may be needed.

TABLE 1: TYPES OF EVALUATION OF MASTER'S PROGRAMS

	ACCREDITATION	STATE BOARD REVIEWS	INSTITUTIONAL REVIEWS
Purpose	To determine whether program/institution meets minimum standards of the profession or region.	To determine whether programs meet standards for accountability and in some instances for quality.	To improve programs and reallocate reources.
Source of the Questions	The profession	State boards, board staff, legislators, governors, and public.	Administrators, faculty
Main Questions	1) Do institutions and programs meet minimum standards? 2) How can they improve?	1) Are institutions and programs accountable for the funds provided? 2) Are consumers protected against fraud? 3) Are state resources being used efficiently? 4) Is the program needed?	1) What is the history of the program? 2) How good is it? 3) How can it improve?
Typical Methods	1) Self-study 2) Visit by professional teams	1) Quantitative analysis by staff 2) Studies by outside experts 3) Self-study 4) Reports from institutions based on board guidelines 5) Statewide committees	1) Self-study 2) Studies by experts, outside or internal 3) Quantitative analysis

Summary

This paper argues that too many master's programs are an embarrassment to this country's system of higher education. It is about time for a reform effort. The effort is most likely to succeed if it encompasses reform at the national, state and institutional levels. But primary responsibility (as well as legal responsibility) lies with the states, working with colleges, universities and boards. A comprehensive and systematic evaluation of master's programs is suggested, and criteria are provided. Because accreditation, state evaluations, and institutional evaluations have distinct advantages and disadvantages, coordination is urged.

There is no one right way to evaluate master's programs. But only through evaluation can we restore credibility to the master's degree. That would benefit those offering the degree — and those receiving it.

Ultimately, each state will need to determine what combination of evaluation efforts best fits its traditions, environment, educational structure and delegated responsibilities.

References

Barak, Robert J. Program Review in Higher Education. Boulder: National Center for Higher Education Management Systems, 1982.

Barak, Robert J. Meta-Reviews (working title). Forthcoming, 1987.

Carnegie Council on Policy Studies in Higher Education: A Summary of Reports and Recommendations. San Francisco: Jossey-Bass Publishers, Inc., 1980.

Cartter, Allan M. An Assessment of Quality in Graduate Education. Washington: American Council on Education, 1986.

Council of Graduate Schools in the United States. The Assessment of Quality in Graduate Education. Washington, D. C.: 1980.

Council of Graduate Schools in the United States. The Master's Degree. Washington, D. C.: 1976

Education Commission of the States. The States and Graduate Education. Denver: 1975.

Eels, Walter Crosby. Degrees in Higher Education. Washington, D. C.: The Center for Applied Research in Education, 1963.

Folger, John. Financial Incentives for Academic Quality. San Francisco: Jossey Bass Publishers, Inc., 1984.

Joint Committee on Standards for Educational Evaluation. Standards for Evaluation of Educational Programs, Projects and Materials. New York: McGraw-Hill Book Company, 1980.

Mayhew, Lewis B. and Ford, Patrick J. Reform in Graduate and Professional Education. San Francisco: Jossey-Bass Publishers, Inc., 1974.

Ottinger, Cecilia. "National Reports are Having an Impact on Campuses," Higher Education and National Affairs. August 11, 1986, P. 3.

Scholarship for Society. Princeton: Educational Testing Service, 1973.

Stauffer, Thomas M. ed. Quality — Higher Education's Principal Challenge. Washington, D. C.: American Council on Education, 1981.

"Survey Finds Little Interest in Reforming Master's Programs," Chronicle of Higher Education. November 18, 1981, P. 15.

THE STRAIN OF QUALITY

Jules B. LaPidus
President
Council of Graduate Schools in the United States

Like Glazer, Jules LaPidus takes a broad view, discussing the master's degree in the context of current conditions in graduate education. Attending to academic business at the graduate level means attending to quality, he maintains, no matter that quality cannot be achieved without strain.

To the running debate about whether the master's degree is appropriately a vocational degree, LaPidus contributes the idea, which he supports with quotations from Robert Hutchins, that "graduate education has always been vocational." The problem lies elsewhere, he believes. In part, it lies in the fact that general education has become specialized. But mainly it lies in the fact that good graduate education requires a commitment to quality — even though making and maintaining that commitment is far from easy. —Editor

I chose this title because of the intriguing relationship I find between the two terms, strain and quality. Each of them has at least two distinct meanings. Strain can mean a tune, or an inherent tendency, or a great effort, or stress, or tension. Quality can mean the nature of something or the degree of excellence a thing possesses. Interchanged, the terms would provide a title for a different talk.

Let me proceed.

There is a strain that runs through all discussions of education, particularly of higher education. It is an insistent strain of concern for quality. That is, when we talk about education, we talk about wanting it to be excellent. But we rarely define exactly what we want to be excellent, and we don't often talk about what it takes to get to excellence. I intend to talk about these things today.

A Definition of Graduate Education

To define quality in graduate education, let me first define graduate education as focused (specialized), advanced, and scholarly.

With the possible exception of the Master of Liberal Studies programs, all graduate programs are focused. The focus may be a discipline (chemistry, history), a profession (business, nursing), or a problem, issue or place (many interdisciplinary programs, area studies).

Graduate education is advanced in several senses. Some graduate programs are based on the premise of liberal or general education. The assumption is that students are literate, have acquired knowledge about a wide variety of topics, can write a paper, have dealt with concepts and conflicts of ideas, and so forth. This assumption is made in many of the "professional" graduate areas, particularly those leading to "tagged" masters degrees — M.L.S., M.B.A., M.P.A., M.S.W., etc. Other programs are based on the premise of an undergraduate major in a discipline. In fields like chemistry and physics, approximately 80% of students who receive doctorates have undergraduate degrees in the same field. Graduate work in engineering, education, pharmacy, fine and performing arts is based on the premise of an undergraduate education in a professional school. The assumption is that students have specific skills and basic knowledge of the profession.

Graduate education is scholarly because it is based on the premise of an evolving, generalizable knowledge base arrived at and agreed to by peers. A student must be able to understand and use that knowledge base at the master's level and make significant contributions to it at the doctoral level. The ability to synthesize and analyze knowledge is usually evaluated through some kind of general examination or the production of a

thesis or dissertation. The components of a good graduate program are designed to act synergistically, producing a result that is more than the sum of its parts.

All graduate programs are, additionally, research-oriented or practice-oriented. Though there are obvious overlaps, research-oriented programs are driven by the state of knowledge in a discipline, generally speaking, and practice-oriented programs are driven by the state of practice in a profession.

These definitions give us a way of understanding the nature, or the quality, of graduate education. A Ph.D. program in physics should, for example, be focused, advanced, scholarly and deal with the state of knowledge in physics. An M.B.A. program should be focused, advanced, scholarly and deal with the state of practice in business.

Now I want to examine how graduate programs developed these qualities.

Recent Evolution of Graduate Education

Before World War II, universities educated relatively small numbers of students. In 1911, about 40,000 degrees were awarded in the United States: approximately 25,000 baccalaureate degrees, 14,750 master's degrees, and 497 doctorates. World War II had a dramatic effect. In 1947, there was a 42% increase in second-level (master's and professional) degrees; in 1948, there was a 48% increase. By 1949, the yearly rate of increase in degrees at all levels had begun to return to pre-war levels, but the numbers of students did not decline. The increase slowed during the middle 1950s. But 98,901 second-level degrees were awarded in 1959, and the number rose fairly steadily through the 1960s and 1970s to reach approximately 300,000 degrees a year. In the 1980s, about 280,000 second-level degrees are awarded each year, almost nine times the number of doctorates.

World War II did more than increase volume in graduate education. It changed the entire relationship of universities and society in America. The changes in volume, spurred by the G.I. Bill, made it clear that a much larger segment of the population believed that attending college was financially possible and relevant to their career aspirations. This particularly affected graduate work in the sciences and engineering and the production of faculty members for a rapidly expanding higher education establishment. As many more people expected to go to college, society in general began to view colleges and universities as the appropriate place for young people to prepare for a career.

Graduate education has always been vocational. People who wanted to spend their lives working in a particular field went to graduate school to add specialized and advanced training to general education. The problem was that general education started to become more specialized in order to prepare people for continued specialization. Marcia Noe, writing in the Chronicle of Higher Education (September 10, 1986) has suggested that "From the early years of our Republic until fairly recently, a good liberal arts education could also serve as training for an occupation or profession. Then, with the advent of high technology, more and more of the good jobs required specialized training. Now that a traditional education alone is inadequate preparation for most careers, it no longer enjoys wide public support."

Actually, this is not such a recent phenomenon. Robert Hutchins, in a series of essays delivered in 1936 at Yale and published as The Higher Learning in America (New Haven, CT: Yale Universtiy Press, 1936), approached the same problem in a different way: "All that can be learned in a university is the general principles, the fundamental propositions, the theory of any discipline. The practices of the profession change so rapidly that an attempt to inculcate them may merely succeed in teaching the student habits that will be a disservice to him when he graduates."

Nonetheless, after World War II, many more people viewed postsecondary education as part of career training. This increased vocationalism at all levels of the curriculum. It also meant that access to higher education was increasingly seen as important in economic terms, particularly with respect to professional careers.

More than the other changes that have occurred since World War II, this change in the way society sees the role of the university has, I believe, affected the current state of higher education and, most particularly, of post-baccalaureate education at public universities. Why at public institutions? Because institutions supported by public money are expected to respond to public perceptions of need and, at the state level, proximity has a way of intensifying the political expression of that need. Why post-baccalaureate education? Because in an age of rampant professionalism and mass postsecondary education, certification at some level beyond the baccalaureate becomes important in differentiating the workforce.

Though he wrote The Higher Learning in American in 1936, the comments that Robert Hutchins made about public pressure on universities remains relevant.

> Every group in the community that is well enough organized to have an audible voice wants the university to spare it the necessity of training its own recruits. They want to get from the university a product as nearly finished as possible, which can make as large and as inexpensive a contribution as possible from the moment of graduation.

So do his comments on the triviality of narrow vocationalism.

> If you set out to prepare a boy for a trade there are and can be no limits to the triviality to which you will descend except those imposed by the limitations of time at your disposal. You can justify almost anything on the ground that it may be helpful to a young man in his profession. And if you take the view that a university may properly prepare boys for trades, there is no limit

to the number of trades you can train them for except those imposed by the limitations on your resources. Since you can usually make a school pay if you make it vocational enough there are really no limits at all. Any occupation that wishes to be dignified will say that it is a profession and suggest that the university cooperate by offering a curriculum preparing young people for it. This is a free country, which in my business means that anybody is free to make suggestions to a university and demand that they be carried out.

Current Conditions

I mentioned earlier that we expect to award close to 280,000 master's degrees in 1986-87. Those degrees will carry between 800 and 1000 different designations. There will be several large groups. In the professional areas, the M.B.A. and M.Ed. will dominate, followed by other well defined degrees like the M.S.W., the M.P.A., the M.F.A., and the various engineering degrees. There will be many M.A. and M.S. degrees, each usually followed (at least implicitly) by "in Chemistry" and "in English" or "in" some other discipline. Then there will be hundreds of other degrees, described with a bewildering variety of letters (one of them always an M), some awarded in only one institution, that respond to perceived (and usually local) need. In many cases these degrees originate not in public policy or in educational policy but in simple market response.

Let me give you an example. A university in the Washington area has initiated a degree called "Master of Association Management." To my knowledge, it is the only degree of its kind. But then, Washington is the only city of its kind. It is filled with associations representing almost every conceivable organized group in the country. The Council of Graduate Schools is one. Others are the American Association of State Colleges and Universities and the National Association of State Universities and Land-Grant Colleges and the International Association of Machinists and the National Association of Potato Chip and Snack Food Manufacturers. Staffs of these associations need to know about meeting planning, member services, legislative affairs, newsletter publication, fund

raising, public relations, and so on. Many staff members have baccalaureate degrees, and many have master's degrees or even doctorates. But none of them has a degree specifically in association management. There is little question that people who work in association management can use the kinds of information and skills I have described. The real question is how to get them. They could be learned on the job and often are. They could be learned through independent study, from books describing techniques, case studies and the like. They could be learned in courses given by proprietary groups, by associations, by colleges and universities. All of these methods work, and work well, if the employee is motivated and if the employee and the employer seek improved work performance.

But in so many cases, that is not enough. What I am talking about is vividly portrayed in the movie version of the "The Wizard of Oz." The scarecrow continually demonstrated his ability to think through complex problems. But he wasn't satisfied, because he believed he didn't have a brain. After persevering through a series of harrowing practicums, he asked, as his reward, for a brain. To everyone's immense satisfaction, the wizard (an astute observer of the social scene) gave the scarecrow a diploma.

Like the wizard, we seem to be operating "The Great American Degree Machine." If you advance in your job and become an administrator — get a graduate degree in administration. If your field is making more use of computers — get a graduate degree in computer science. If you are changing fields — get a graduate degree in your new field. The educational system seems always ready to respond. But the desire to respond often results in a departure from high standards for performance. That departure is a disservice to the universities, the students, and the public, and it will eventually trivialize the entire educational enterprise. We have seen some examples of that recently in the Georgia and Maryland athletic scandals. In editorials, news stories, and

letters to the editor, the public expressed a sense of outrage that universities were not attending to academic business and not upholding academic standards.

The Case for Quality

How, then, are we to attend to our academic business at the graduate level?

Good graduate education requires a commitment to substance over form, to depth over breadth, and to intellectual development over technical proficiency. Maintaining this commitment can cause considerable strain, particularly in the face of public pressure to train for minimal acceptable performance rather than to educate for maximal intellectual potential. That strain can be financial when funds are allocated (or reallocated) on the basis of quality. It can be political when programs are continued or discontinued on the basis of quality. It can be personal when faculty or students are not permitted to start or continue what they want to do because they are not qualified. It will be emotional in all cases.

Basing decisions on considerations of quality causes strain between the university and the external community as well as within the university. There are strains in the relationships between universities and state higher education executive offices when approval of new programs and the allocations of state funds are based on considerations of quality. Both partners then feel the strain of responding to public demands for certification at inflated degree levels. Exacerbating the problem is our inability to define educational quality clearly, particularly in quantitative terms. In the search for proxies we often descend to totally inappropriate measures, like the ability to turn out the largest number of students in the shortest period of time and at the lowest cost. But the procurement approach is no more valid in describing educational quality than it is in

describing quality of any kind. It comes closest to describing efficiency, and education is not an efficient process.

Edward Deming, the statistician who influenced the development of Japanese industry after the Second World War, has said that if you want to increase productivity, increase quality. If, for example, you improve the quality of the starting materials, you can carry a smaller inventory because there will not be as many rejects and you will not have to repeat operations because of faulty materials. This is a powerful metaphor for education, which must be viewed as a life-long multi-step process in which the quality of each step can be defined by how well it prepares you for the next step, particularly when you don't know what the next step is going to be.

I believe that universities need to examine carefully and thoughtfully their responsiveness to public perceptions of educational need. New graduate programs should have some definable, generalizable knowledge base. They should supply students not simply with techniques or skills but rather with enought intellectual content that graduates can adjust to changing techniques and skills. Graduate programs must have a solid base in scholarship, and they must be directed by a faculty whose active involvement in scholarly activities prevents them from becoming professionally isolated and academically provincial.

Doing this is not easy. Doing it does not always seem to be what students, parents, employers, or the general public want.

There may be too many strains involved in quality. Those who have it must strain to keep it; those who don't have it must strain to get it. Quality may be altogether too uncomfortable, too demanding of time, money, intellect and emotion, particularly if

people feel that, in an immediate and practical sense, it really does not make much difference. In that case, we can say that what we do is high quality, figuring that for someone else to prove that it isn't will be too much trouble.

But universities really cannot take that course. The strains of quality — the strain of deciding what we should and should not be doing and, most particularly, the strain of insisting on the highest standards of performance for our students and ourselves — will not stretch the university out of shape. Indeed, those strains are uniquely associated with the academic values and processes we cherish. Accepting academic mediocrity, however, will cause such damaging strains that neither we, nor the society we serve, will be able to tolerate them.

A CRI DE COUER — AND QUESTIONS TO CONSIDER

Joslyn L. Green
Consulting Editor

Partial success is better than none.

That is my reaction to learning that the Kansas Board of Regents has begun to draw clear distinctions between graduate and undergraduate courses, for example, and to require graduate students to add group study of standard sorts to independent study. It's my reaction to learning that Tennessee has begun to correct "the additive fallacy" by insisting that master's candidates take part in a culminating experience. Those developments, and others like them that are not described in this short collection of papers, are heartening. I see them as fairly unambiguous signs of progress.

They are unambiguous, yes. But in another sense I find them rather small signs of rather little progress. For I am left with the feeling that such progress ought not to have been necessary and that it became necessary only as a result of a regrettable regress in higher education. Only by taking a cold, hard look at the factors responsible for regress can we hope to see the troubles now besetting the master's degree in the right light. As I hope to demonstrate, the "right light," to my way of thinking, shows that the master's degree is only marginally more problematic than other degrees in higher education and that a major source of the larger problems the master's shares is no less than a loss of conviction.

Recapitulated here by several contributors are the now-familiar facts about the immense expansion of higher education in American after World War II and the changing perceptions that were both cause and effect of that expansion. To point out that 300,000 people a year received master's degrees in the 1970s, and that 280,000 people continue to

receive them each year, is to cite truly stunning evidence of growth. Even the sturdiest, most monolithic enterprise would have felt the force of such an assault on its standard ways of operating. Certainly higher education, which is far from monolithic and, for that reason and others, less than totally sturdy, has reeled from the impact. Certainly higher education's ways of operating have changed.

The change that I would like to discuss here is what I referred to earlier as a "loss of conviction." Overwhelmed by the need to enroll students in very large numbers, faculty and administrators lost that conviction that, about education at least, they know better. They lost the conviction that an educational institution — at heart, inevitably, desirably — must claim intellectual authority. That is, great as democratic pressures may be on an educational institution, the institution must ultimately stand for intellectual values, values that are not antithetical to democracy but simply incommensurate with it. An institution that fails to stand for these values fails its students, few or many. For then what students have come to seek — higher education, education that is intellectually authentic — they cannot find.

If, to use the example Jules LaPidus cites, people who earn their living managing associations return to school to learn how to manage associations, they are, I submit, seeking to put everyday practice into an intellectual framework, seeking contact with intellectual authority. (If, as others might submit, such students seek nothing more than a credential, I see no reason for institutions of higher education to respond with equal cynicism.) If what is available to them does no more than mirror what they already know, then higher education has struck a bargain it should not strike. It has emptied itself of content and conviction.

When that happens, no wonder that, finally, a concerned group of some sort hastens to fill what is all too clearly a void.

Seen in this light, the actions of the Kansas Board of Regents or the Tennessee Higher Education Commission are no less admirable. But I am saddened by the developments that made these actions necessary. I am sad that the people who created and ran and taught in the "anemic" master's programs themselves did not stand up for stronger standards. I am sad that, somehow, somewhere, their internal conviction was lost.

To take another example, this one supplied by Judith Glazer. Ought there to be a distinction between work done for a Bachelor's of Social Work and a Master's of Social Work? Clearly there ought to be. My point is that one could reach that conclusion deductively, reasoning one's way from an understanding of a discipline to a sense of what aspects of that discipline are best presented to students at what stages. One need not wait passively for a program review to reveal duplication of courses, structural overlaps, and all the other external evidence of weakness on which inductive reasoning depends.

Conviction. Not blind conviction, but a reasoned conviction that a master's program, or a doctoral program, or any other university program has intellectual validity, internal coherence, demonstrable reasons for being. If there were more of that conviction abroad in higher education, I suspect that there would be fewer problems with the master's degree.

Now for some questions. These occur to me as I read these essays with a view to broader implications or next steps. If the essays were to arouse other questions in other readers — deeper questions, more penetrating questions — that, of course, would be the best result of all.

Granting that the master's degree has traditionally been more weakly defined than other degrees and that it may to that extent be a pressure point in higher education, how specific to it are its current problems?

LaPidus finds that the problem of vocationalism is not a problem of graduate education — which he considers inherently vocational — but, rather, a problem that has devolved onto general education. If there is movement in the other direction as well — if, as the information assembled by the Kansas Board of Regents implies, overabundant independent study continues into doctoral work, for example, or higher degrees proliferate, too — then we should perhaps recognize that many troubling features of master's programs are symptoms of a more general malaise.

Though program review originated in other impulses and serves many other purposes, it seems to have become a catalyst for change in master's programs. What are other possible catalysts?

Lawrence and LaPidus strongly, though somewhat unspecifically, support the idea of internal controls of quality. What about professional associations and accreditation agencies? Do they have potentially positive roles to play in clarifying or strengthening the master's? Can public institutions draw on the experience of private institutions, whose greater freedom of action often accelerates innovation? Should corporate degree programs be of primarily territorial concern, or are there lessons to learn from their success?

Part of the appeal of Tennessee's move to strengthen formal requirements is the simplicity of the basic idea. What other strategies might be equally straightforward?

Appleson's proposal to create a "P.S." degree at least looks the fact of continuing professional education straight in the eye, though in some other regards creating a new degree would probably contribute to complexity. Implicit in the definitions of graduate education that LaPidus has begun to develop are fairly simple suggestions for how to structure graduate programs.

For decades, teachers have earned high percentages of the master's degrees awarded. Now, though, with the recent work of The Holmes Group, for example, and with the re-examination of teaching that has accompanied the sweep of education reform through statehouses and legislatures, how to train teachers better has received renewed consideration.

Is the re-examination of teacher training producing ideas that could be borrowed for more general use? Conversely, what can current thinking about the master's degree in general contribute to the re-examination of teacher training in particular?

A major point of The Holmes Group is that research universities can make a unique contribution to the education of teachers. What can this great class of universities do about advanced professional degrees generally? Can they help weave a less-tangled web?

Broadly speaking, the effect of measures like those now being used by the Kansas Board of Regents or the Tennessee Higher Education Commission is to discourage the worst — to limit dramatic overuse of independent study, to infuse vigor into anemic programs. But what about demonstrably superb programs in Kansas, in Tennessee, or elsewhere in the nation? What makes them superb? That is, what can we learn from good master's programs? How can we learn not simply to discourage the worst but to encourage the best?

APPENDIX

Components of Quality in Master's Degree Programs

C. W. Minkel
Mary P. Richards

Tennessee Conference of Graduate Schools

Preface

America's predominance as an industrial power went unchallenged for almost a century, and its future as the world's preeminent agricultural nation has only recently been challenged. Yet, in both industry and agriculture, other nations have forged ahead while the United States has found contentment in its established greatness and in maintaining the status quo.

It is well recognized that graduate education in the United States is currently unexcelled. Yet, primary and secondary education in this country lack rigor, and even baccalaureate programs focus on "self development" and "interpersonal relationships," rather than on mastery of disciplinary content. At a time when substantive Master's degree programs are being initiated in even the most underdeveloped nations of the world, standards for the Master's degree in the United States have been allowed to deteriorate. Efforts at reform are resisted by those who do not perceive the need to work harder, and more imaginatively, to maintain and advance the leadership in graduate education that we currently enjoy.

Dr. Jules B. LaPidus, President of the Council of Graduate Schools in the United States, focusing on the debate over quality in American education, makes the following observation:

> Ignored in all of this is any coherent national discussion of the master's degree and its role in a society that increasingly demands this kind of credential in order to hold a job or keep one. No one is quite sure about the total number of master's degrees being offered in this country today, but a conservative estimate would be somewhere near 1,500. It is often difficult to relate the substance of many of these degrees to either professional or academic rationales.

The Tennessee Conference of Graduate Schools, working in close collaboration with the Tennessee Higher Education Commission, has sought to identify those components of quality in Master's degree programs that should be recognized and promoted. These will serve as criteria by which proposals for new Master's degree programs will be approved and by which existing programs at this level will be evaluated. Yet, quality is a concept difficult to measure with precision. This reality underlines the need for continued cooperation between the various entities concerned with quality in graduate education within the State of Tennessee and beyond.

Members of the Tennessee Conference of Graduate Schools and the Tennessee Higher Education Commission who served on the committee to formulate the Components of Quality in Master's Degree Programs are as follows:

Dr. Robert Appleson, Assistant Director for Academic Affairs, Tennessee Higher Education Commission;

Dr. Dorothy Arata, Dean of the Graduate School, Memphis State University;

Dr. Richard A. Crofts, Associate Vice President for Research and Graduate Studies, East Tennessee State University;

Dr. C. W. Minkel, Vice Provost and Dean of The Graduate School, University of Tennessee, Knoxville;

Dr. James H. Reeves, Dean of the Graduate School, Tennessee State University.

The text for this publication was prepared with the assistance of Dr. Mary P. Richards, Associate Dean of The Graduate School at the University of Tennessee, Knoxville.

Components of Quality in Master's Degree Programs

The Master's degree has a long and continuous tradition among institutions of higher education, both in Europe and the United States. However, its value as a credential to certify educational achievement has varied markedly through time. At present it occupies an intermediate position between the baccalaureate and doctoral degrees, and thus all too frequently serves a s a "middle ground" between what can be recognized clearly as either graduate or undergraduate education.

The terms "graduate" and "undergraduate" are almost universally employed, yet are seldom well defined. In general, undergraduate instruction is designed to convey to the student a knowledge of the history, traditions and values of a particular society, so as to make that individual a literate and articulate participant in the life of the nation. Included in such instruction are the basic skills of communication and computation by which one functions effectively as an educated citizen.

Graduate education inherently implies a greater depth of training, with increased specialization and intensity of instruction. Admission is more selective, class size is smaller, the lecture is replaced by seminar and laboratory. The learning experience is more self-directed and interactive between faculty and students, and among the students themselves. The faculty members are more experienced and more highly qualified. Most important, there is active concern for the generation of new knowledge, through research, rather than simply the transmission of what is already known.

In recent decades a new form of Master's degree, which does not correspond to traditional definitions and criteria for evaluation, has emerged and become increasingly popular. This is the so-called "professional degree," which is oriented more toward direct application of knowledge attained than toward original research. Skills and work-

oriented experiences in such degree programs may serve more useful ends than research methodology and field investigation for the preparation of a Master's thesis. Complicating the formulation of criteria by which to evaluate quality in such programs is the fact that these programs have developed in a wide variety of professional fields, each with separate degree designations and subject to a wide array of external accrediting agencies.

The purpose of this document is to set forth certain basic, clearly-defined criteria by which proposals for new Master's degree programs can be evaluated, and by which the quality of existing Master's degree programs can be measured. It is recognized that not every high-quality program will meet every quality criterion. However, where omissions occur, it is believed that the "burden of proof" rests with those who propose such programs or are conducting programs already in existence.

Quality Criteria

Although experience may vary by specific program and student, ten broad areas are considered to be essential to the quality of a Master's degree program. These emphasize the individualized nature of graduate education and the importance of supervised development of the student pursuing the degree.

1. **Tutorial Experience** Master's degree programs should provide personalized instruction, advisement and guidance for the students by professors in the field. Such attention is needed to assure the appropriateness of individual program components to the student's total educational experience, and to assure that the instruction offered matches the personal/professional objectives of the student.

The tutorial experience should include periodic monitoring of student progress through the designed program, with adjustments as necessary.

2. **Level of Sophistication** Instruction offered in Master's degree programs should be at a level of sophistication distinctly above that of undergraduate instruction. Courses should be characterized by advanced disciplinary content and intellectual rigor. An ample number of graduate courses should be offered to provide a balanced program, and students should be required to have a significant percentage of graduate-level (as distinct from combined undergraduate and graduate) courses in their degree programs. There also should be an adequate number of faculty, including at least several members with terminal degrees in the field, to assure that graduate courses are offered frequently enough to allow students to proceed through their programs in a timely and efficient manner.

3. **Core of Planned Coursework** In a Master's degree program there should be a core of planned coursework appropriate to the degree major or discipline, as opposed to a mere collection of courses and credits. The program should be coherent, to assure mastery of specified knowledge and skills through interrelated courses. Further, the coursework should foster an integration of knowledge as well as disciplinary specialization.

4. **Tool/Technique/Methodology Requirements** Requirements for program components to enable the students to acquire tools, techniques or methodology for the discipline are an important part of the Master's degree. These may include statistics, computer technology, foreign languages or research methodology. The function of

such requirements is to help the student comprehend the discipline, understand research, and aid in actual practice of the education acquired.

5. **Research Component** Although programs with an academic orientation may differ from those with a professional focus in the type of research component required, all Master's degree programs should assure a basic knowledge of the research function in the discipline. Students should learn how new knowledge is created, how experimentation and discovery are carried out, and how to think, act and perform independently in the discipline. Depending upon the degree to which the program has an applied orientation, the student can demonstrate mastery of it through means such as traditional research papers, literature reviews, reports to journal clubs, oral/written presentations or case studies.

6. **Extra-disciplinary Experience** A Master's degree should embody some academic exposure outside of the immediate degree major or discipline. The educational experience should not be limited exclusively to the administrative unit in which the program is conducted, nor should the student be considered as "property" of the program or administrative unit. A single discipline does not necessarily convey all of the knowledge and experience an individual student may need from a Master's degree program. The student should have reasonable opportunity to broaden the academic experience in a coherent way, through related coursework outside the major and through other experiences such as internships or practica.

7. **Culminating Experience** A Master's degree should include some kind of capstone or integrating activity, such as an advanced seminar, thesis, recital, exhibit, practicum or internship. Ideally this experience will demonstrate the writing, organizational, and applied performance skills associated with the particular

degree. The culminating experience will provide a record of the student's achievement in the program to be consulted as needed for references and program evaluation in future years.

8. **Communication Skills** A Master's degree program should require the student to demonstrate an ability to communicate in a manner and level appropriate to the degree and discipline. These skills may be gained through means such as written assignments, oral reports and examinations, and the study of a foreign language, and should be evaluated in the culminating experience.

9. **Application of Knowledge** A Master's degree program should require the student to develop and demonstrate the ability to apply knowledge learned in coursework. This may be done through examinations, field problems, thesis, papers in lieu of thesis, a practicum, internship or assistantship. An evaluation of the student's performance in this area should be included as part of the permanent record.

10. **Comprehensive Examination** A Master's degree should include a comprehensive examination at or near the end of all coursework for the degree. This examination should require the student to demonstrate breadth of knowledge in the discipline, depth in specific areas, and the ability to integrate what has been learned. Such an examination may be conducted in written and/or oral form.

Appropriate Academic Environment

The quality of an academic program is related directly to the institutional environment in which the program functions, and to the type of administrative structure by which it is governed. Hence, quality criteria and academic ambience cannot be dealt with as

separate or isolated phenomena. Quality programs, particularly at the graduate level, require a highly developed institutional infrastructure and reasonable financial support.

1. **Continuity/Intensity** Certain standards must be established to ensure a rigorous intellectual experience for a Master's student. An adequate number of courses should be offered by departments having Master's degree programs. Appropriate admission standards should be in effect to ensure a quality learning environment. The program should have a critical mass of students enrolled, so that they are part of a coherent group of peers. Residence requirements are desirable to ensure intensity of the graduate experience for at least one term of the student's program. Time limits for the Master's degree are necessary for continuity of the graduate experience and to assure that the student is up to date in the discipline when the degree is awarded. Short courses and others taught in non-traditional formats should be reviewed carefully to assure that they provide an appropriate graduate-level experience before they are included in a Master's degree program.

2. **Facilities/Equipment** A Master's degree program requires adequate library support in serials, monographs and services to sustain graduate work in the field, and adequate computer support to enable students to conduct research. Sufficient materials for laboratory research and other types of projects must be available, along with facilities such as office and laboratory space. Equipment should be up to date and in good repair so that teaching and research can be accomplished in a timely manner.

3. **Faculty Support** Graduate faculty should receive salaries appropriate to their discipline, level, experience and performance. They should have regular opportunities for professional development, including paid leaves of absence for the

accomplishment of specific projects, travel to professional meetings, and participation in workshops and other learning activities. Their teaching loads should reflect the highly individualized nature of graduate study, especially the direction of theses and dissertations. Graduate faculty should have ample materials and secretarial support to encourage research and publication.

4. **Ambience** A scholarly environment is essential for a Master's degree program to thrive. There should be a graduate faculty, reviewed periodically for continued evidence of research and publication as well as commitment to the graduate program. Adjunct faculty should be used sparingly, and only for specific purposes. A Graduate Council composed of elected members of the graduate faculty should be the policy-making body for the graduate school, and there should be an effective administrative structure to implement Council policies. Lecture series and other enrichment opportunities should be available to the graduate community as part of a larger scholarly environment.

5. **Evaluation** Master's degree programs should be evaluated periodically through academic program reviews and the accreditation process, where applicable, to ensure their continued quality and effectiveness. These reviews should address courses and curricula, and faculty and student performance. They should also encourage program administrators to maintain data and to conduct internal research concerning their program for planning purposes and quality control.

Conclusion

Graduate programs, particularly at the Master's degree level, have expended rapidly during recent decades both within the United States and abroad. The great majority of such programs appear to address societal needs in an effective and efficient manner. Yet, their diversity is more conspicuous than commonality, and there has been a notable lack of criteria for quality control. It is hoped that this document will provide some standards by which to evaluate new Master's degree programs proposed for approval and those already in operation.